REMARKS

Applicant respectfully requests the Examiner's reconsideration of the present application as amended.

Claims 1-30 are pending in the present application.

Claims 25-29 were rejected under 35 USC § 102(e) as being anticipated by U.S. Patent Publication No. 2003/0085621 ("Potega").

Claims 1-2, 4-7, 18-19, 25 and 26 are rejected under 35 USC § 103(a) as being unpatentable over U.S. Patent Publication No. 2003/0009705 ("Thelander") in view of Potega.

Claims 3 is rejected under 35 USC § 103(a) as being unpatentable over Thelander in view of Potega and further in view of U.S. Publication No. 2003/0226049 ("Mantani").

Claims 9, 11, 12, 21, 23-24 are rejected under 35 USC § 103(a) as being unpatentable over Thelander in view of U.S. Patent No. 5,600,841 ("Culbert").

Claims 13-15 are rejected under 35 USC § 103(a) as being unpatentable over Thelander in view of U.S. Patent No. 5,652,893 ("Ben-Meir").

Claims 6, 8, 10, 16-17, 20, 22 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim 28 has been amended.

Support for the amendment to claim 28 is found on page 5-17 of the specification, Figures 1-9 of the drawings, and claims 1-28 as originally filed. No new matter has been added.

Claims 1-30 are rejected under 35 USC § 102(e) and § 103(a) as being unpatentable over Potega, Thelander, Mantani, Culbert, and Ben-Meir. In particular, the Examiner has stated that

> Regarding claim 25, Potega discloses a power management system include a power evaluation unit (e.g. [0145]), comprising: a data retriever unit (sensor 703) to retrieve (acquire) power data from an operating system (supplied device) (e.g. [0272]-[028]); and a data processor unit (microcontroller) to determine a net power consumption of an application from the power data (e.g. [0273]-[0282]).

> Regarding claim 26, Potega discloses the power data comprises power capacity (e.g. [0149]) and drain rate data from a battery (e.g. [0186]).

(12/23/2005 Office Action, p. 2)

It is submitted that Potega, Thelander, Mantani, Culbert, and Ben-Meir do not render claims 1-30 unpatentable under USC § 102(e) and § 103(a).

Potega includes a disclosure of a power supply that detects power requirements of an electrical device and configures itself to provide the correct power to the device. By using a connector that isolates the device from its battery, the power supply can provide power to the device, recharge the battery, recharge the battery while at the same time providing power to the device, or provide power to the device while preventing the battery from being recharged. A switch used with the connector creates various circuits and is controllable by the power supply, the electrical device, by signals from the electrical device, or by a third device. The power supply may provide power to a plurality of devices and may be used with other power supplies to form a power grid. A master control unit receives inputs from each of the power supplies and controls the delivery and supply of power being the power supplies. (Potega Abstract).

Thelander includes a disclosure of a method and system for controlling the power management profiles of computers connected through a network. The method and system monitoring the electrical power use of each computer in the network, and reports this information to an authorized party, such as the network administrator. According to the method and system, an authorized party may configure and maintain a power management profile for each computer in the network. In particular, the authorized party may individually configure and maintain a power management profile for each computer. Alternately, each computer in the network can be classified in a group, and the authorized manager can then configure and maintain a single power management profile shared by each computer in the group. (Thelander Abstract).

Mantani includes a disclosure of a clock control that calculates a CPU usage rate for each of a plurality of applications with respect to a maximum clock frequency attainable by an information

processing apparatus, based on registered clock frequency necessary for executing each of the applications, and setting a system clock frequency determined by a total sum of the CPU usage rates. If the frequency with which the system clock frequency exceeds a maximum clock frequency increases, an apparatus upgrade necessity alarm is sent. (Mantani Abstract).

Culbert includes a disclosure of a method, system, and apparatus for controlling the supply of power to an I/O device attached to a General Purpose Input/Output (GPIO) circuit in a personal digital assistant (PDA). The GPIO circuit, which is responsible for supplying power to the attached I/O device, includes a pin enable circuit coupled to the power pin of the I/O device, where the pin enable circuit includes a contingency register holding a contingency bit and a power register which controls the power supply to the I/O device power pin. The contingency bit is reflective of a power supply priority of the I/O device, where the priority is determined by the type of the I/O device and whether or not the I./O device is recognized. (Culbert Abstract).

Ben-Meir includes a disclosure of a power management system rod for local area network hubs includes a network switching hub with a connection backplane with a plurality of connection slots. A power supply is provided having one or more elements providing a maximum power available for the system. Manageable modules are connected to said switching hub, each of said manageable modules having a memory providing information as to the power requirements of the module. A controller module is connected to said manageable modules via said switching hub. The controller module includes memory means for receiving data from said manageable modules as to power requirements. A microprocessor is provided for calculating power requirements of the system and for controlling the supply of power to each of said modules. (Ben-Meir Abstract).

It is submitted that Potega, Thelander, Mantani, Culbert, and Ben-Meir do not teach or suggest a data retriever unit to retrieve power data supplied to an operating system by a battery, and a data processor unit to determine a net power consumption of an application from the power data.

On the contrary, Potega discloses a sensor array 703 that includes sensors C-1, C-2, and S-1 though S-4. The sensor array 703 does not retrieve (acquire) power data from an operating system

(supplied device) as suggested by the Examiner (12/23/05 Office Action, p. 2). It is the supplied device 705 that uses the sensors to determine whether other supplied devices are operating under battery power, or relying on power supply 745. If current is flowing, the other supplied device is accessing the power supply, but if there is no load on powerline 733, the device is running on battery power (confirmed by voltage sensors S-3 and S-4 being active). No power data is retrieved from the supplied device 705 by the sensors 703. Instead, information is retrieved from the sensors 703 from the supplied device 705 (see [0283-0284] and Figure 5B).

Furthermore, the microcontroller 747 actuates the switch configurations to ensure that each supplied device 705 and 741 is getting power from either power supply 745 or its own internal battery 719 or 735 (see [0280] and Figure 5B). The microcontroller 747 does not determine a net power consumption of an application from the power data. Applicant submits that Potega fails to disclose how the net power consumption of an application may be determined from power data.

Thelander only discloses monitoring and synchronization of power use of computers in a network. Thelander does not teach or suggest a data retriever unit to retrieve power data supplied to from an operating system by a battery, and a data processor unit to determine a net power consumption of an application from the power data.

Mantani only discloses a clock control method and apparatus and medium therefore. Mantani does not teach or suggest a data retriever unit to retrieve power data supplied to from an operating system by a battery, and a data processor unit to determine a net power consumption of an application from the power data.

Culbert only discloses a method and apparatus for anticipatory power management for low power data. Culbert does not teach or suggest a data retriever unit to retrieve power data supplied to from an operating system by a battery, and a data processor unit to determine a net power consumption of an application from the power data.

Ben-Meir only discloses a switching hub for power management. Ben-Meir does not teach or suggest a data retriever unit to retrieve power data supplied to from an operating system by a battery, and a data processor unit to determine a net power consumption of an application from the power data.

In contrast, claim 25, states

> A power evaluation unit, comprising:
> data retriever unit to retrieve power data supplied to from an operating system by a battery; and
> a data processor unit to determine a net power consumption of an application from the power data.

(Claim 25) (Emphasis added).

Claims 1 and 18 include similar limitations regarding the use of power data supplied by a battery to an operating system to determine net power consumption of an application. Given that claims 2-12, and 19-24, and 26-28, as amended, depend directly or indirectly from claims 1, 18, and 25, it is likewise submitted that claims 2-12, 19-24, and 26-28, as amended, are also patentable under 35 U.S.C. §102(e) and §103(a) over Potega, Thelander, Mantani, Culbert, and Ben-Meir.

Applicant submits that Potega, Thelander, Mantani, Culbert, and Ben-Meir do not teach or suggest power data supplied to an operating system by a battery where the power data is the power capacity and the drain rate data of the battery.

The Examiner cites paragraphs [0149] and [0186] as evidence that Potega discloses power data where the power data is power capacity and drain rate data of a battery (12/28/05 Office Action, p. 2). Paragraph [0149] only describes a scenario where a laptop computer attempts to boot up and open an application where the battery supply is depleted. Paragraph [0186] only describes that the current-drain of a laptop during charging activity in stages 2 and 3 appears as noise. It is unclear to the Applicant where in these paragraphs the Examiner believes Potega discloses power data supplied to an operating system by a battery where the power data is the power capacity and the drain rate data of the battery.

Thelander only discloses monitoring and synchronization of power use of computers in a network.

Mantani only discloses a clock control method and apparatus and medium therefore.

Culbert only discloses a method and apparatus for anticipatory power management for low power data.

Ben-Meir only discloses a switching hub for power management.

In contrast, claim 26, states

> The power evaluation unit of Claim 25, wherein the power data comprises power capacity and drain rate data of the battery.

(Claim 26) (Emphasis added).

Applicant submits that Potega, Thelander, Mantani, Culbert, and Ben-Meir do not teach or suggest a data evaluation unit to determine a systematic error associated with a run-time for the power data.

The Examiner cites paragraph [0118] as evidence that Potega discloses a data evaluation unit to determine a systematic error associated with a run-time for the power data (12/28/05 Office Action, p. 3). Paragraph [0118] only describes a safety circuit that detects whether a regulator is over-voltaged. The safety circuit shuts off the supplied device if the regulator is over-voltaged. Applicant submits that detecting an over-voltaged regulator is not equivalent to determining a systematic error associated with a run-time for power data.

Thelander only discloses monitoring and synchronization of power use of computers in a network.

Mantani only discloses a clock control method and apparatus and medium therefore.

Culbert only discloses a method and apparatus for anticipatory power management for low power data.

Ben-Meir only discloses a switching hub for power management.

In contrast, claim 27 states

> The power evaluation unit of Claim 25, further comprising a data evaluation unit to determine a systematic error associated with a run-time for the power data.

(Claim 27) (Emphasis added).

Applicant submits that Potega, Thelander, Mantani, Culbert, and Ben-Meir do not teach or suggest determining a net power consumption of an application from power data supplied to an operating system, and determining a systematic error of the power data used for determining the net power consumption.

The Examiner cites paragraphs [0274]-[0277] as evidence that Potega discloses "determining net power consumption of an application from power data supplied to an operating system" (12/23/05 Office Action, p. 3). As stated above with reference to claim 25, the microcontroller 747 actuates the switch configurations to ensure that each supplied device 705 and 741 is getting power from either power supply 745 or its own internal battery 719 or 735 (see [0280] and Figure 5B). The microcontroller 747 does not determine a net power consumption of an application from the power data. Applicant submits that Potega fails to disclose how the net power consumption of an application may be determined from power data.

The Examiner cites paragraphs [0118], [0273]-[0275] as evidence that Potega discloses "determining a systematic error of the power data used for determining the net power consumption" (12/23/05 Office Action, p. 3). As stated above with reference to claim 27, paragraph [0118] only describes a safety circuit that detects whether a regulator is over-voltaged. The safety circuit shuts off the supplied device if the regulator is over-voltaged. Applicant submits that detecting an over-voltaged regulator is not equivalent to determining a systematic error associated with a run-time for power data. Furthermore, paragraphs [0273]-[0275] only discloses that the power supply 745 load shares and monitors power consumption of supplied devices. Paragraphs [0273]-[0275] do not teach or suggest determining a systematic error of power data.

Thelander only discloses monitoring and synchronization of power use of computers in a network.

Mantani only discloses a clock control method and apparatus and medium therefore.

Culbert only discloses a method and apparatus for anticipatory power management for low power data.

Ben-Meir only discloses a switching hub for power management.

In contrast, claims 29 states

> A method for managing power data, comprising:
> determining net power consumption of an application from power data supplied to an operating system; and
> determining a systematic error of the power data used for determining the net power consumption.

(Claim 29) (Emphasis added).

Given that claim 30 is dependent on claim 29, it is likewise submitted that claim 30 is also patentable under 35 U.S.C. §102(e) and §103(a) over Potega, Thelander, Mantani, Culbert, and Ben-Meir.

Applicant submits that Potega, Thelander, Mantani, Culbert, and Ben-Meir do not teach or suggest determining whether the update frequency for the power data is sufficient and determining a net power consumption of the application from the power data if the update frequency is sufficient.

The Examiner cites column 17, lines 60-67, and column 18, lines 29-64 as evidence that Ben-Meir discloses "determining whether the update frequency for the power data is sufficient" (12/23/05 Office Action, p. 7-8). Column 17, lines 60-67 of Ben-Meir only discloses that the RCM 50 will update its power budget with revised unmanaged power allocation values provided by the DMM 30 if there is sufficient power budget available for a newly inserted module 12. It is unclear to the Applicant how this is pertinent to determining whether the update frequency for power is sufficient.

Column 18, lines 29-64 discloses interfaces used to modify power management configuration data and how the data is used. The power management configuration data is described as being maintained by the RCM 50 and includes power fault-tolerant mode, overheat automatic power-down mode, slot power state, unmanaged module power allocation, and slot type (see col. 8, lines 11-21). Applicant submits that modifying power management configuration data is not equivalent to determining whether the update frequency for power data is sufficient.

Furthermore, the prior art cited also fails to disclose determining a net power consumption of an application as stated above with reference to claim 25.

The Examiner acknowledges that Thelander fails to teach determining whether the update frequency for the power data is sufficient (12/23/05 Office Action, p. 7)

Potega only discloses methods and configurations for power supplies.

Mantani only discloses a clock control method and apparatus and medium therefore.

Culbert only discloses a method and apparatus for anticipatory power management for low power data.

In contrast, claim 13 states

> A method for managing power data, comprising:
> collecting power data for a system running an application from an operating system over a first time period;
> collecting power data for the system in a baseline state from the operating system over a second time period;
> determining whether the update frequency for the power data is sufficient; and
> determining a net power consumption of the application from the power data if the update frequency is sufficient.

(Claim 13) (Emphasis added).

Given that claims 14-17 depend directly or indirectly from claims 13 it is likewise submitted that claims 14-17 are also patentable under 35 U.S.C. §102(e) and §103(a) over Potega, Thelander, Mantani, Culbert, and Ben-Meir.

In view of the arguments set forth herein, it is respectfully submitted that the applicable rejections and have been overcome. Accordingly, it is respectfully submitted that claims 1-30 should be found to be in condition for allowance.

The Examiner is invited to telephone Applicant's attorney (217-377-2500) to facilitate prosecution of this application.

Respectfully submitted,

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